A (Rev. 1)
Decommissioning Profile
As Listed Below

[All wells are non-compliant with WAC 173-160 regulations]

Well Name	Well ID #	Drilling Method, Drill Date, Pad/Posts	Drill Depth (ft bgs)	Last DTW/DTB (ft bgs) [Date]	Casing Size, Type, Screen Interval & Seals (ft bgs)	Purpose of Well [Variance]
299-W15-10	A4916	Cable Tool 1/1968 N/N	300	229.4/~292 [03/2003]	8"CS to 300 ft, w/perf's (6 cuts/rnd/ft) from 183 to 297 ft	Unknown [na]
299-W18-5	A5470	Cable Tool 11/1958 N/N	280	234.2/274.1 [03/2003]	8" CS to 280 ft, w/perf's (?/ft) from 195 to 274 ft	Unknown [na]
299-W19-1*	A4944	Cable Tool 5/1957 N/N	301	Dry/211.6 [03/2003]	8" CS to 301 ft w/perf's (1 cut//rnd/ft) from 178 to 299 ft	Unknown [yes]
299-W19-5	A7734	Cable Tool 11/1968 N/N	235	Dry/226.9 [03/2003]	6 5/8" CS to 235 ft w/perf's from 205 to 230 ft	Unknown [na]
299-W19-7	A7735	Cable Tool 11/1968 N/N	235	Dry/218.9 [03/2003]	6 5/8" CS to 235 ft w/perf's (6 cuts/rnd/ft) from 205 to 233 ft	Unknown [yes]
299-W21-1*	A4963	Cable Tool 9/1957 N/N	352	Dry/244.8 [03/2003]	8" CS to 280 ft, w/perf's (?/ft) from 220 to 290 ft	Unknown [yes]
299-W22-4*	A7830	Cable Tool 8/1955 N/N	316	229/>300 [03/2003]	8" CS to 313.8 ft w/perf's (1 cut/rnd/ft – spiraled) from 200 to 313.8 ft	Unknown [yes?]
299-W22-8	A7833	Cable Tool 4/1956 N/N	286	Dry/225.1 [02/2003]	8" CS to 283.5 ft, w/perf's (1 cut/rnd/ft-spiraled) from 223 to 267 ft, (4 cuts/rnd/ft) from 267 to 277 ft, & (1 cut/rnd/ft) from	Unknown [yes]

					277 to 283 ft-spiraled	
299-W22-22	A4967	Cable Tool 7/1960 Y/N	301	248.1/298.8 [03/2003]	8" CS to301 ft w/perf's (6 cuts/rnd/ft) from 225 to 300 ft, {caliche 190 to 230 ft}	Unknown [na]
299-W22-23	A7844	Cable Tool 8/1960 N/N	307	Dry/241 [03/2003]	8" CS to 302 ft w/perf's (6 cuts/rnd/ft) from 200-300 ft	Unknown [yes]
299-W22-28	A4969	Cable Tool 2/1964 N/N	300	Dry/227.9(?) [03/2003]	8" CS to 300 ft w/perf's (6 cuts/rnd/ft) 215-259 ft, (2 cuts/rnd/ft) 260-279 ft, and (1 cut/rnd/ft) 280-297 ft	Unknown [yes]
299-W22-37*	A7856	Cable Tool 11/68 N/N	335	Dry/234.4 [03/2003]	6" CS to 335 ft w/perf's (6 cuts/rnd/ft) from 200 to 233 ft	Unknown [yes]
299-W22-38	A7857	Cable Tool 12/68 N/N	233	Dry/218.8 [03/2003]	6" CS to 233 ft w/perf's (6 cuts/rnd/ft) from 200 to 233 ft	Unknown [yes]
299-W23-8	A4991	Cable Tool 9/1972 N/N	235	215.3/216.6 [03/2003]	8" CS to 235 ft, w/perf's (3 cuts/rnd/ft) from 165 to 175 ft, (6 cuts/rnd/ft) from 175 to 185 ft, (1 cut/rnd/ft) from 185 to 200 ft, (3 cuts/rnd/ft) from 200 to 205 ft, (1 cut/rnd/ft) from 205 to 215 ft, & (3 cuts/rnd/ft) from 215 to 230 ft	Unknown [yes]

Note: All wells are FY 2003 Decommissioning Candidates. None of the wells have protective surface casing. The four wells with an asterisk (299-W19-1, 21-1, 22-4 & 22-37) are

significantly deeper than the other wells in this profile and will require evaluation of the type of fill present prior to initiating perforating/cementing.

1. File an Intent to Decommission" (Start Card) for each well with the Washington State Department of Ecology (WDOE) with copies to FH.

2. Conduct pre-job meetings as required.

3. Place clean silica sand to ~10 ft above the local aquifer water level (if applicable).
   Note: *The four wells with an asterisk will require sampling of the fill prior to proceeding. If the fill is silica sand, formation sand or bentonite, the fill may be left in place and procede to step 4 below. If the fill is of a different nature, the FH BTR must contact the FH Well Coordinator to discuss appropriate steps to decommission these wells.*

4. Mechanical perforating and squeeze cementing shall be used to obtain a seal outside of the casing. Perforating and squeeze intervals are not to exceed 80 ft without prior approval of the Fluor Hanford BTR, and shall be conducted from depth, working to within 5 ft of the surface. Using a mechanical perforator, perforate the casing from top of fill/sand for the first interval. Perforations shall be at least four equidistant cuts per row, one row per foot, and each cut shall be at least 1 ½ inches long (or equivalent open area).

5. Immediately prior to cementing each interval, place a wash solution consisting of 3 casing volumes* of a maximum 6 % (by volume) calcium chloride, followed by 2 casing volumes of potable water, at the midpoint of the interval.
   (* : 1 volume is the casing capacity of the perforated interval, only)

6. In the deepest perforation interval, set a packer immediately above the treated interval (with tail pipe approximately 10 ft off bottom) and place cement (with 2 percent bentonite) to a minimum of 40 psi – maximum of 100 psi surface pressure, and hold pressure for a minimum of 20 minutes. Repeat perforating/wash solution/cement squeeze process for each interval sequentially until all perforated intervals are sealed to the surface.

7. Remove the concrete pad, if present. Cut the casing flush with the ground surface and remove the casing stub. Fluor Hanford will dispose of casing and any concrete.

8. Top off cement in the casing until it remains full, and place a brass survey marker with the well name, ID number, and date embedded in the cement in the casing so that it remains visible for future site identification.

9. Complete a "Water Well Report" for each well and submit to WDOE with copies of the transmittal letter and each report to FH.

Prepared by: R K Biggerstaff 5/8/03, R. L. Biggerstaff, FH, Well Coordinator

Concurrence and date: Joseph Caggiano 5/8/03

Joseph Caggiano, WDOE
Nuclear Waste Division
Kennewick, WA 99336